CMHC
Canada Mortgage
and Housing Corporation

SCHL
Société canadienne
d'hypothèques et de logement

# HAZARDS IN THE DWELLING

## A PRELIMINARY ASSESSMENT OF DATA

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Prepared for

the Research Division

Policy Development and Research Sector

Canada Mortgage and Housing Corporation

by

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Abstract

The Corporation contracted for the preparation of a brief overview paper to show initial dimensions of housing hazards, especially accidents in the house and the quality of indoor air. In addition, existing data bases and ongoing work and research are also described and recommendations made for further work.

In substantive terms the whole subject area is quite new, the research is scattered and, obviously, not yet focused. Recommendations are made to establish cooperative ventures, at least on the federal scene, prepare a listing of relevant government programs, as well as an inventory of products with toxic releases. And last but not least suggestions are made to assist the Corporation to focus its objectives and interest and to assess the potential influence the Corporation could bring to bear on the subject areas.

This initial report is not exhaustive by any means - it was done in a limited time frame and on a limited budget with the objective of putting on paper the scope and dimensions of a complex and emerging area to serve as a basis for future work.

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SECTION I

The present study was undertaken to provide a preliminary, "broad brush" look at data sources and research in the area of hazards in housing, in order to assist the Corporation in writing terms of reference for work in a project, entitled "Hazards in the Dwelling."

Work Statement

Specifically, the tasks included:

1. Identifying the major English language sources of information and research centres on hazards in the dwelling.
2. Commenting on the quality of available literature.
3. Proposing a form and structure for a CMHC data base.
4. Providing examples of the kind of data which could be included in such a base.

In order to fulfill the objectives of the work statement, a working definition of household hazards was required. Since this preliminary study was intended as a background to assist the Corporation in defining terms of reference for a project, "Hazards in the Dwelling" it was decided to divide hazards into two basic categories: those concerning indoor air quality and those dealing with the more physical features of buildings, i.e., poisoning, falls, fires, and burns.

This division was chosen because the approaches to the issues involved are different. The results of physical accidents - be they poisoning by ingestion or falling down stairs - are much more definitive and immediately visible than are the problems resulting from indoor air quality. While it

might be difficult to relate accidents to actual house design, the accident itself can be detailed and, if desired, traced to determine the most immediate cause. For example, when someone falls down the stairs by tripping over a shoe the event itself is clearly measurable at a specific point in time.

Indoor air quality, however, requires different kinds of observations. First, the term itself is difficult to define - are we referring to air pollutants, humidity-temperature levels, etc.? The air in the indoor environment is made up of a number of components, some of which are harmful by themselves at some levels, some of which are harmful only in combination with other air particles, and some of which are harmful at different levels to individuals with various degrees of susceptibility. At this point, however, the effects of the components of indoor air are, for the most part, unknown - as are the tolerance levels of individuals, the acceptable standards for the home environment, and the interrelationships of various air components and their impact on human beings. In addition, the results of poor air quality may take years to show up and are not easily measurable. For example, people suffering from carbon monoxide poisoning do not exhibit specific medical conditions which are exclusively related to carbon monoxide poisoning.

## Methodology

To address the initial requirement of the work statement (#1 and #2) library files were searched, first at CMHC, then at other departments, including the

National Research Council, Health and Welfare Canada, and Consumer and Corporate Affairs. Computer file searches were conducted, both through NRC facilities and through CMHC's library, in order to produce the broadest access possible to published literature. When this approach proved limited -- possibly because of the breadth of the topic, the newness of the subject matter, and the fact much of the research, especially in the area of home accidents, is in manuscript form not easily retrievable through computer files -- direct contacts were initiated with government offices which might be involved in collecting, analyzing, or researching data of relevance to the general topic. Contacts subsequently were made with individuals in Consumer and Corporate Affairs, Health and Welfare, Statistics Canada, and the National Research Council. One advantage of the direct contact is that it yielded information on current work in the field.

One overall comment, however, is that much of the work being done is focused on the occupational health area or, at least, is not house-specific. While some of this data could be used for a data base on "hazards in housing" it would have to be used selectively and with the knowledge of its limitations in household uses. Obviously, some hazards are applicable to all environments, but, the research, in general, by not focusing on housing, tends to ignore those groups at greatest risk in the home: young children, the elderly and women. In the case of indoor air quality occupational standards, according to Health and Welfare officials are, in many cases, too low for household applications. Occupational standards are based on exposure of normal, healthy adults at eight hour time exposures, with time-off

in between exposure for the body to recover. Household standards need to be based on people of all ages and in all health conditions, who might spend up to 70% of their time in the indoor environment.

In the area of accidents, especially, there appears to be a fair bit of statistical data available; however, it is not available on a routine or consistent basis. Detailed data would have to be sought out on specific areas of interest -- often by working through the various professional or interest groups -- i.e., hydroelectric commissions, fire commissions, standards associations, etc. in order to obtain detailed statistics.

It is also difficult to obtain a "research program" from federal officials because, for the most part, research in this area appears to be conducted on a reactive basis. Time and again, when asked, "How do you determine what hazards you research?" I was told it was through political, public pressure, or "someone had an idea."

SECTION II

This section addresses work statements #1 and #2.

Accidents

While there is much data available in the area of accidents occurring in the home, it is fairly widely scattered. The work is, for the most part, not related directly to housing, focusing, instead, on the built environment which, of course, includes housing. However, since the dangers in this area are physical, it would probably be possible to extrapolate data on housing and hazards, once definitions are in place. But, in order to obtain the data which could be used in a detailed data base that is house specific, the Corporation would have to be prepared to allocate a fair amount of resources to its collection and maintenance.

Canadian statistics are sparse, and, even on a national level, widely scattered and aggregated. For example, data on accidental deaths are available from Statistics Canada. Figures on poisonings, as reported through poison control centres, are also available from Health and Welfare Canada; however, they are not directly related to housing or accidents. And, from preliminary discussions it was unclear as to exactly how much detailed data could be made available from the federal government. In most cases it would be necessary to go directly to the source document to obtain details required to physically locate the accident within the home.

As far as actual research in the area of home accident is concerned, work is scattered. Focusing on Canadian research efforts Jake Pauls of the National Research Council has done considerable work on stairs and stair safety. Both the Division of Electrical Engineering and Division of Building Research at the NRC are active in the field.

However, since most of the work is focused on the built environment specific criteria would have to be established for data collection on housing.

In current work, Joan Harvey, Health Facilities Branch, Health and Welfare, is preparing to contract out a study on "Accidents and the Built Environment". Joan wants to look at existing literature and data with the ultimate aim, if possible, of setting up a data base dealing specifically with the built environment.

Reflecting the mandates of different federal departments, there does not appear to be one clearly defined center of activity, and in most cases research is not related directly to housing. Because of the mandates of various departments, research and monitoring is product-related rather than house-related. If one were to look at, say, poisonings, specific data on products is split between three departments, depending on what product is involved -- Consumer and Corporate Affairs, Health and Welfare, and Agriculture Canada, while general statistics are kept by Health and Welfare through the Bureau of Epidemiology. Because of provincical jurisdictions it is difficult to determine what is available without specific requests. The

Dominion Fire Commissioner, for example, keeps general statistics on home fires, but their data is based on statistics collected by the provinces.

Jake Pauls of the NRC is establishing a Building Use and Safety Institute (BUSI) in collaboration with an American colleague. Some of the undertakings of BUSI in the next year are a one day seminar on stair safety and a general international conference on building safety. While BUSI is just being launched, Pauls says it is designed to be a "broker" in the field of building safety and human factors.

Perhaps it would be useful for the Corporation to discuss BUSI with Pauls, since Pauls appears to have established an international network of people involved with work on building safety.

The Science Council of Canada, co-sponsored with the Royal Society a "Symposium on the Assessment and Perception of Risk to Human Health in Canada" in October 1982. While the proceedings are not yet available, the report might be of interest when it is released.

In the U.S. a fair amount of research has been conducted under the sponsorship of the Consumer Product Safety Commission and the National Bureau of Standards. A deeper investigation of these two agencies, especially CPSC, would probably provide useful information on current research and specific data available. The National Institute of Occupational Safety and Health of

the Occupational Safety and Health Administration, Washington, also conducts research in the area of building safety. While their mandate is safety in the work environment, some of their work is applicable to other structures. For example, they have done research into the use of handrails. Through the Office of Policy and Development, the Department of Housing and Urban Development has sponsored research into housing safety as well.

The Buffalo Organization for Social and Technical Innovation (BOSTI) has done considerable work in the area of household safety, especially focusing on attempts to find cost effective solutions. Michael Brill of the Institute has done some definitive work on windows and window design. John Archea of Georgia Technical Institute is involved in stair research.

The Building Research Establishment of Great Britain has conducted in-depth studies in the area of home safety, including stairs, windows, fires and glass.

Indoor Air Quality

The issue of indoor air quality is quite recent but very topical. Work on the subject is widely scattered, reflecting the breadth of the topic. It tends to be medically oriented and most research is being carried out in conjunction with various medical facilities around the world.

From my perusal of the literature, it would appear that work, to one extent or another, is being carried out in all 12 areas listed by the World Health Organization as causing concern: tobacco smoke, $NO_2$, Co, radon, formaldehyde, $SO_2$, $O_3$(Ozone), asbestos, nonasbestos mineral fibers, organics, and allergens.

Health and Welfare Canada, through the Bureau of Chemical Hazards and a federal-provincial group which includes all provinces except Quebec is developing acceptable air quality levels for the twelve pollutants for housing. Secretary of the group is Dr. Vic Armstrong, Criteria Section, Monitoring and Criteria Division. It is anticipated the criteria levels will be established by the end of this fiscal year. The levels will be established as ideal levels for the various pollutants, from a health point of view. Achieving and maintaining these levels will not be addressed by Health and Welfare.

Meanwhile, the Monitoring group in the same Bureau is measuring indoor contaminants, both organic and inorganic, in an attempt to measure the toxicity of products used in the home. Currently work is being done on fabric softeners and paint removers.

It might be useful to the Corporation to spend some time with staff of the Bureau of Chemical Hazards to determine exactly what in-depth toxicological studies are being done, or have been carried out, that could be related to household indoor air quality.

The National Joint Council of the Public Service of Canada, an interdepartmental group which includes union representation, is involved in developing norms and standards in the work environment on the issue of air quality. Under this group a compendium of norms for the office environment is being written by Treasury Board. They are also looking at a project involving the development of a system which will control and monitor energy consumption to maintain the working environment within prescribed comfort levels.

Public Works Canada have energy management guidelines which include temperature and humidity guidelines. Through the Architecture and Building Science Division, Public Works is conducting research on such physical concerns as thermal and acoustical comfort levels. Although the focus of the work is on the office environment, the Corporation might find it useful to obtain more detailed information on these programs.

While there are differences between house needs and those of the office or work environment. (As noted earlier, the standards need to be tighter for the home) there undoubtedly is some crossover in data. For example, ventilation system requirements and location of deliverability could be useful in housing design as well as office design.

In addition, the Atmospheric Environment Service, Dept. of the Environment, has done work on trying to establish a correlation between new standards on energy and indoor air quality.

Since the topic of indoor air quality is extremely broad, the research being conducted is widely dispersed. Under the purview of this contract it was considered sufficient to identify the various centers where work has been conducted and carried out by reputable research laboratories, a critique of their quality is beyond the scope of this contract since most work is of a medical-scientific nature. An annotated notation on the work being conducted by these centres could perhaps be carried out if the Corporation should so desire.

Environment International, Vo. 8, Numbers 1-6, which is the proceedings of an International Symposium on Indoor Air Pollution, contains technical and scientific papers on a wide range of indoor air quality matters. (See Appendix A.) Each article also contains references to an average of 10 related articles. In addition, a study done by Bruce Small for CMHC, "Indoor Air Pollution and Housing Technology" contains an extensive bibliography on work in the field.

A perusal of the above mentioned literature identifies the following as conducting a substantial amount of work in the general field:

1. Lawrence Berkeley Laboratories, Berkeley, California
2. Battelle, Columbus Laboratories, Columbus, Ohio
3. Johns Hopkins School of Hygiene and Public Health, Baltimore, Maryland
4. University of Cincinnati Medical Center, Kettering Laboratory, Cincinnati, Ohio
5. Sandia National Laboratories, Albuquerque, New Mexico
6. Brookhaven National Laboratory, Upton, N.Y. (U.S. Dept. of Energy)
7. Yale University
8. John Spengler, Harvard University School of Public Health

In addition, several of the major companies are involved with their own research programs on air contaminants produced by their own products -- programs which, according to Health and Welfare officials, are of high quality. The most active companies include: Dow Chemical Co., 3M Company, Colgate Palmolive, Dupont, General Electric Research and Development Center, Schenectady, New York, Philip Morris Inc., Richmond, Virginia. Much of the work is being conducted through contracts from the Department of Energy, and the U.S. Environmental Protection Agency.

The U.S. National Science Council is active in the general topic. And, in the more traditional area of air quality, ASHRAE has researched humidity - temperature comfort levels for the indoor environment.

The World Health Organization is involved in a European Regional Programme on Chemical Safety and is conducting work in this area. A fair amount of work

is being conducted in Sweden and Denmark on the subject as well. The most active in this field appear to be the Division of Building Physics, Swedish National Testing Institute; Institute of Hygiene, University of Aarhus, Denmark, University of Stockholm, Institute on Ventilation, Norwegian Institute of Technology.

So far there does not seem to be a data base which could be used by the Corporation. In fact, much of the basic research to determine such things as: (1) indoor pollutant levels; (2) human exposure levels; (3) health effects -- and identification of high risk groups; (4) toxicity levels of products used in the home, has not yet been developed.

The Corporation might, however, want to consider setting up a bibliographic data base which would include annotated references to published work on air quality. Since the research in the area is not house-specific, such a project might best be done in an inter-departmental effort.

SECTION III

Current Data Bases

1. Statistics Canada Data

   StatsCanada collects data on both mortality (deaths) and morbidity (illnesses and injuries), broken down by province and age and sex. In addition, the data is coded down as to general location, i.e., home, farm, industrial places, etc. The data is collected using the

International Classification of Diseases (ICD-9E) coding system -- a system established by the World Health Organization. The mortality figures are collected from coroner's reports while the morbidity (injury) figures are based on hospital admissions and collected through provincial health authorities. However, this data is not routinely published in detail, although details such as location of accidents would be available from StatsCanada on request and at a price. The complete identification of the type and amount of relevant data, their method of collection, their uses by StatsCanada and others as well as accessibility, and at what cost, may be useful or desirable but was judged to be beyond the purview of this contract, except for the brief description provided above.

2. CAIRE

Consumer and Corporate Affairs established a data base collection system in 1982. The objective of the system, Canadian Accident and Injury Report Reporting and Evaluation (CAIRE), is "to provide a data bank of accident/injury information which, in turn, will help organizations concerned with product safety to establish priorities and evaluate programs."

CAIRE collects data from five hospitals, out of more than 1 000 medical institutions nationwide - the Isaac Walton Killam Hospital, Halifax, Montreal General Hospital, Toronto Hospital for Sick Children, Pasqua Hospital, Regina, and Prince George Hospital,

British Columbia. CAIRE functions by collecting data on admissions to participating hospitals, including emergency room visits. Nearly 1 000 consumer products are coded, using the ICD-9E classification system also used by Statistics Canada. The term consumer product is used in a very broad way; some classifications, such as waffle iron, are very specific, while others, such as stairs, are very broad.

Semiannual reports will be issued. The first, covering April - September 1982, was just released. Again, the published reports are quite general, although more specific data would be available on request. CAIRE people, operating under a tight budget, are quick to point out the limitations of their system -- two of the five reporting hospitals deal exclusively with children and the sample is quite small. However, CAIRE personnel would be interested in discussing ways in which their program could be expanded through cooperative participation with other government agencies.

3. NEISS

CAIRE is patterned after the American system, National Electronic Injury Surveillance System, run by the Consumer Product Safety Commission, Washington, D.C. NEISS became operational in 1972, and also keeps injury statistics on some 1 000 products. Since both NEISS and CAIRE use the same methods of data collection and coding, although NEISS's budget and sources of raw data are much larger, it might be possible to use the two together to discern trends and problem areas.

The Consumer Product Safety Commission has used information collected from NEISS to carry out follow-up studies to determine causal relations in accidents. The Commission has done at least one general household study, and in-depth studies on various consumer products, including bathtub accidents. The Commission used to publish a Consumer Product Hazard Index which attempted to measure the risk involved in the use of a product. However, the last issue published was in 1977. A closer, detailed look at the workings of the Commission might well be warranted, should the Corporation proceed with a data base.

4. HASS

Since 1979 Britain has had its Home Accident Surveillance System (HASS), which also collects data on accidents. The HASS system has been used by the Building Research Establishment to conduct in-depth studies on causes of accidents. Unfortunately, while several people were aware of HASS no one was able to provide detailed information and attempts to locate data on the actual system were not successful, although references to it were made in studies by the British Research Establishment. From the information available it appears to be similar to NEISS.

5. CCOHS

Another data base which might prove of interest is being established by the Canadian Centre for Occupational Health and Safety in

Hamilton. CCOHS is apparently setting up a data collection system on chemical hazards. While this, obviously, is geared towards the occupational health field, it might be useful to take a closer look at what they are trying to do and to see if their data could be adapted to Corporation use.

Factors for Consideration

While the work statements #3 and #4 called for recommendations on establishment of a data base, the Corporation would have to focus its objectives a bit further before specific recommendations could be made on this subject because establishement of a data base is extremely expensive and all data bases are based on a regular and periodic collection data which is extremely expensive. For example, the StatsCan census data, collected via surveys, are often evaluated in terms of the cost of one particular question vs. its potential value. General accident surveillance systems, such as CAIRE, are expensive to operate. CAIRE, operating in only five hospitals, has a budget of $100 000 for one year; this figure does not include the overhead for administrative personnel at Consumer and Corporate Affairs.

At this point in time, given the state of the knowledge in the subject of indoor air quality, a data base on household hazards could either focus on indoor air quality or on accidents and injuries, as two independent systems. There may not be economies in having a combined system. In other words, the Corporation could phase in one cluster of data relative to one subject or the

other. The source data for the two types of observations are completely different. Accidents occur at specific random time periods, while indoor air quality could be monitored on a continuous basis. Attempts at correlating the effects of indoor air quality with specific accidents would, in my opinion, have to be done through narrowly focused research studies, such as one recently completed for the National Research Council by Bruce Small, "Environmental Health Factors in Falling Accidents".

Some factors which CMHC may want to consider are:

1. The data base objective must be determined. I was told repeatedly that we should define what information we want very narrowly. Is the data base intended to obtain overall descriptive statistics; or is it to provide analytical data which could be used to develop preventive strategies, by providing the Corporation with the ability to investigate particular accidents with a view to developing causal analyses of home accidents.

2. Concurrent with (1) is the question of cost. How much money is the Corporation prepared to spend on a data base? As was described in Section I, there are a number of data bases in place, and maybe a more detailed identification of the existing systems and the data in them should be considered with a view to seeing if other information is needed, or a cooperative venture with one or all of these agencies might result in a more efficient, economic and effective data base.

3. What is CMHC's power to have an impact on this area? It may be desirable for the Corporation to bring into focus not only its interest but its jurisdiction and the potential power it has to influence situations in the house. For example, indoor air quality may be more appropriate to other agencies than to CMHC although, admittedly, there is an interrelationship especially through ventilation systems, but, in terms of scientists, etc. there may be other agencies with more impact. This is not to say that the Corporation should not be aware of efforts in indoor air quality with a view of incorporating research findings into house design, but more to realize that a cooperative effort with some other agencies may yield much more effective results.

4. If a data base on household accidents is to be developed, you would require a working definition of both terms -- what is considered an accident in the home environment? What definition of household is to be considered? Private dwelling, institutional dwelling, multi-unit dwelling, inside the home, outside the home, the yard, the fence?

5. Define the importance of the hazards when it comes to data collection. Priorities for data collection must be established. Factors which might be considered in establishing these priorities could include: (1) frequency of injuries; (2) severity of injuries (3) cost in terms of medical expense, or lost earnings; (4) risk of injury; (5) product life; (6) who is at greatest risk.

6. The system must also be able to differentiate between accidents caused by house design features and those related to human carelessness and/or behavior. Theoretically, the house should be accident proof, but, houses are not used the way they are designed. For example, a shoe left in the middle of the room could show up as a falling accident in the home in any general collection system, but its relevance for house design is probably nil.

   A system such as CAIRE can be used to obtain general accident statistics. StatsCan data could also be used, especially for deaths. These systems, together, could give a general picture; however, in-depth follow-up studies, usually on a survey basis would probably be required to develop in-depth statistics which would provide the causal factors in home accidents which CMHC might be seeking.

7. One further factor would have to be considered, then. That is the level of detail of the data desired must be decided. Do you want data collected by location, age, sex, education; frequency of data collection? Do you want to include the incidence of injuries not resulting in the use of health treatment or fire services? Emergency room or hospital admission data is obviously biased towards more serious injuries, such as head injuries, or certain age groups or socio-economic groups. CAIRE, for example, is biased towards emergency room treatments, and therefore some type of injuries, such as head injuries, tend to show up more often. Other household accident victims, suffering from

different types of injuries, might use physicians' offices. Again, because CAIRE includes two children's hospitals in its group of five hospitals, there is a built-in bias towards children. There may well be a bias towards certain socio-economic groups as well -- who uses hospital emergency room facilities? The Corporation will have to decide which biases are important, and which are not, since almost any data collection system will include some biases.

Recommendations

Before proceeding further with the establishment of a data base on household hazards the Corporation may wish to focus its objectives, as discussed in Section II, by pursuing the following:

1. Take a closer look at the current data collection systems to see how they have developed, what their limitations are, how the data is collected, etc. Take an in-depth look at NEISS and how the Consumer Product Services Commission uses the data from the system. Look at the costs involved.

2. If general statistics are desired using hospital data already available, take a serious look at the possibility of collating information available from Statistics Canada and CAIRE in the area of accident and injury data collection.

3. Investigate with Consumer and Corporate Affairs the possibility of incorporating into CAIRE questions which would allow analysis of accidents by selected criteria. Or, alternatively, consider working with CCA to broaden the sample base.

4. Discuss with Jake Pauls the Building Use and Safety Institute to determine if it could be useful to the Corporation. He mentioned establishing a system for data exchange.

5. Conduct a household survey to determine what priorities should be considered in data on household hazards - i.e., cost of injury, frequency of occurrence, perception of risk. Information from such a survey could be used in conjunction with the broadly based data collection systems to give a focus to in-depth studies.

6. Initiate the establishment of an interdepartmental committee on household hazards to: a. exchange information; b. avoid duplication of efforts in a field which is basically multidisciplinary; and c. share resources - human and financial.

7. Establish liaison with other groups working on indoor air quality, by organizing a conference or establishing a newsletter on ongoing research and events in the field.

8. Prepare a summary-inventory of programs in the federal and provincial government related to household hazards -- indoor air quality and physical building safety. This could be expanded to include work carried out by U.S. agencies.

9. Prepare a listing of materials and products found and used in the home with their toxicity release levels. From such a listing it might be possible to determine materials whose use should be discouraged in the home. This list could be correlated with indoor pollutant levels when available.

10. Investigate with Public Works Canada and Treasury Board the work they are conducting in the area of occupational health and indoor air quality.

11. Consider working on the establishment of a bibliographic data base on indoor air quality which could be incorporated into the CISTI system at the National Research Council for updating and maintenance.

Contacts

Data Bases - Statistics

Jean Shaw, Mortality Statistics, Health Division, Statistics Canada.

Helene Aylwin, Project Manager, Special Projects and Requests, Morbidity Statistics, Health Division, Institutions and Agriculture Statistics Branch, Statistics Canada.

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John Buchanan, Consumer Products Branch, Consumer and Corporate Affairs.

Daniel Barney, Consumer Products Branch, Consumer and Corporate Affairs.

Bob Plunkett, Canada Safety Council.

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Research - Information

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Joan Harvey, Health Facilities Design, Health Resources, Health Services and Promotion Branch, Health and Welfare Canada.

Allan Cotterill, Chemical Hazards Division, Product Safety Branch, Bureau of Consumer Affairs, Consumer and Corporate Affairs Canada.

Dr. Jim Davison, Architectural and Building Sciences Division, Public Works Canada.

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APPENDIX "A"

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APPENDIX "B"

Major Non-Transport Accident

Fatalities Occurring in the Home

1981

Unpublished data from

Statistics Canada

MAJOR NON-TRANSPORT ACCIDENT FATALITIES OCCURING IN THE HOME(1), CANADA AND PROVINCES, 1981

TABLE 15

| CAUSE OF FATALITY | | Canada | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon | N.W. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Falls | M | 358 | 3 | 2 | 12 | 15 | 33 | 142 | 24 | 33 | 28 | 64 | – | 2 |
| | F | 279 | 4 | 3 | 17 | 10 | 12 | 124 | 12 | 23 | 17 | 56 | – | 1 |
| Drowning | M | 43 | 1 | 1 | 1 | – | 14 | 14 | 3 | 2 | 2 | 5 | – | – |
| | F | 31 | – | – | 1 | – | 6 | 12 | 4 | 3 | – | 5 | – | – |
| Industrial Type | M | 97 | – | – | 3 | 6 | 25 | 27 | 9 | 4 | 13 | 10 | – | – |
| | F | 18 | – | – | 1 | 1 | 1 | 11 | 1 | – | 2 | 1 | – | – |
| Fire | M | 343 | 8 | 1 | 17 | 11 | 73 | 100 | 25 | 24 | 40 | 39 | 3 | 2 |
| | F | 208 | 5 | – | 8 | 6 | 43 | 75 | 15 | 7 | 18 | 28 | – | 3 |
| Poisoning | M | 144 | 2 | – | 5 | 5 | 10 | 48 | 8 | 5 | 8 | 53 | – | – |
| | F | 92 | 1 | – | 2 | 1 | 8 | 28 | 6 | 7 | 4 | 35 | – | – |
| Suffocation | M | 103 | 6 | – | 6 | 3 | 14 | 41 | 6 | 5 | 4 | 9 | – | 2 |
| | F | 58 | – | – | 2 | 4 | 11 | 23 | 5 | 5 | 1 | 7 | – | – |
| Firearms | M | 22 | – | – | 1 | – | 4 | 10 | 1 | 2 | 2 | 1 | 1 | – |
| | F | 5 | – | – | – | – | – | 2 | 1 | – | – | – | 1 | 1 |
| TOTAL 7 Major Causes | M | 1 110 | 20 | 4 | 45 | 40 | 173 | 382 | 76 | 75 | 104 | 181 | 4 | 6 |
| | F | 691 | 10 | 3 | 31 | 22 | 81 | 275 | 44 | 45 | 42 | 132 | 1 | 5 |
| | T | 1 801 | 30 | 7 | 76 | 62 | 254 | 657 | 120 | 120 | 146 | 313 | 5 | 11 |
| Other non-transport | M | 13 | – | 1 | 3 | – | – | 5 | – | 3 | – | 1 | – | – |
| | F | 4 | – | – | 1 | – | – | 2 | – | 1 | – | – | – | – |
| TOTAL FATALITIES | M | 1 123 | 20 | 5 | 48 | 40 | 173 | 387 | 76 | 78 | 104 | 182 | 4 | 6 |
| | F | 695 | 10 | 3 | 32 | 22 | 81 | 277 | 44 | 46 | 42 | 132 | 1 | 5 |
| | T | 1 818 | 30 | 8 | 80 | 62 | 254 | 664 | 120 | 124 | 146 | 314 | 5 | 11 |

(1) Excluding farm home and home premises.

Source: Statistics Canada

MAJOR NON-TRANSPORT ACCIDENT FATALITIES OCCURING IN THE HOME(1), BY AGE AND SEX, CANADA 1981

TABLE 16

| CAUSE OF FATALITY (2) | | AGE | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | TOTAL | -1 yr | 1-4 | 5-9 | 10-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65-74 | 75-84 | 85+ |
| Falls | M | 358 | 4 | 3 | - | - | 8 | 18 | 13 | 34 | 57 | 85 | 67 | 68 |
| | F | 279 | 3 | 4 | 2 | - | 2 | 4 | 9 | 13 | 15 | 53 | 66 | 108 |
| Drowning | M | 43 | 2 | 12 | 5 | - | 4 | 1 | 2 | 7 | 2 | 3 | 5 | - |
| | F | 31 | 1 | 10 | 1 | - | 1 | 3 | 2 | 2 | 2 | 4 | 4 | 1 |
| Industrial Type | M | 97 | 2 | 10 | 1 | 5 | 16 | 10 | 8 | 15 | 13 | 10 | 5 | 2 |
| | F | 18 | - | 8 | 2 | - | 1 | 1 | - | 1 | - | 2 | 1 | 2 |
| Fire | M | 343 | 10 | 24 | 19 | 14 | 58 | 44 | 29 | 35 | 45 | 38 | 13 | 4 |
| | F | 208 | 6 | 26 | 12 | 8 | 29 | 23 | 17 | 23 | 22 | 27 | 17 | 8 |
| Poisoning | M | 144 | - | 1 | 2 | 1 | 25 | 32 | 21 | 20 | 20 | 15 | 5 | 2 |
| | F | 92 | - | 1 | - | 1 | 8 | 22 | 17 | 16 | 11 | 14 | 3 | - |
| Suffocation | M | 123 | 11 | 9 | 1 | 3 | 8 | 9 | 7 | 15 | 14 | 12 | 4 | 2 |
| | F | 58 | 16 | 3 | 1 | 2 | 1 | 2 | 2 | 8 | 8 | 7 | 5 | 3 |
| Firearms | M | 22 | - | - | 1 | 4 | 10 | 2 | 2 | - | 1 | 2 | - | - |
| | F | 5 | - | 1 | - | - | 2 | 1 | - | - | 1 | - | - | - |
| TOTAL 7 Major Causes | M | 1 110 | 37 | 69 | 29 | 27 | 129 | 116 | 82 | 126 | 152 | 165 | 99 | 78 |
| | F | 691 | 26 | 43 | 18 | 11 | 44 | 56 | 47 | 63 | 59 | 106 | 96 | 122 |
| | T | 1 801 | 63 | 112 | 47 | 38 | 173 | 172 | 129 | 189 | 211 | 271 | 195 | 200 |
| Other non-transport | M | 13 | 1 | - | - | 1 | - | 1 | 2 | 2 | 3 | 2 | 1 | - |
| | F | 4 | - | - | - | - | 1 | - | - | 3 | - | - | - | - |
| TOTAL FATALITIES | M | 1 123 | 38 | 69 | 29 | 28 | 129 | 477 | 84 | 128 | 155 | 167 | 100 | 78 |
| | F | 695 | 26 | 43 | 18 | 11 | 45 | 56 | 47 | 66 | 59 | 106 | 96 | 122 |
| | T | 1 818 | 64 | 112 | 41 | 39 | 174 | 173 | 131 | 194 | 214 | 273 | 196 | 200 |

(1) Including farm home and home premises.

(2) List of causes according to Table 1. These are also major "home" accidents.

APPENDIX "C"

Accident Injuries Report, April/May 1983

Consumer Products

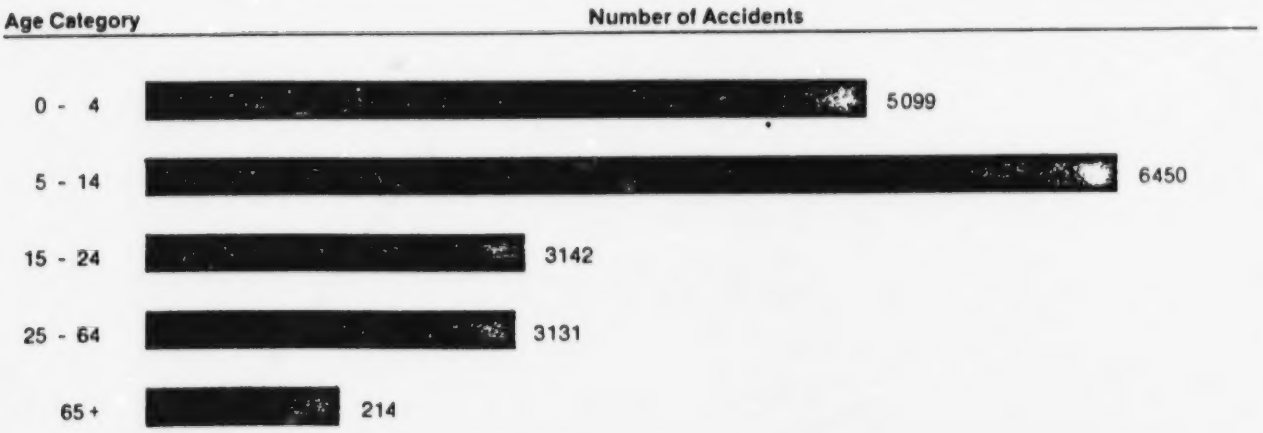
Canadian Accident Reporting and Evaluation (CAIRE)

Consumer and Corporate Affairs Canada

# CAIRE Highlights — Summer 1982

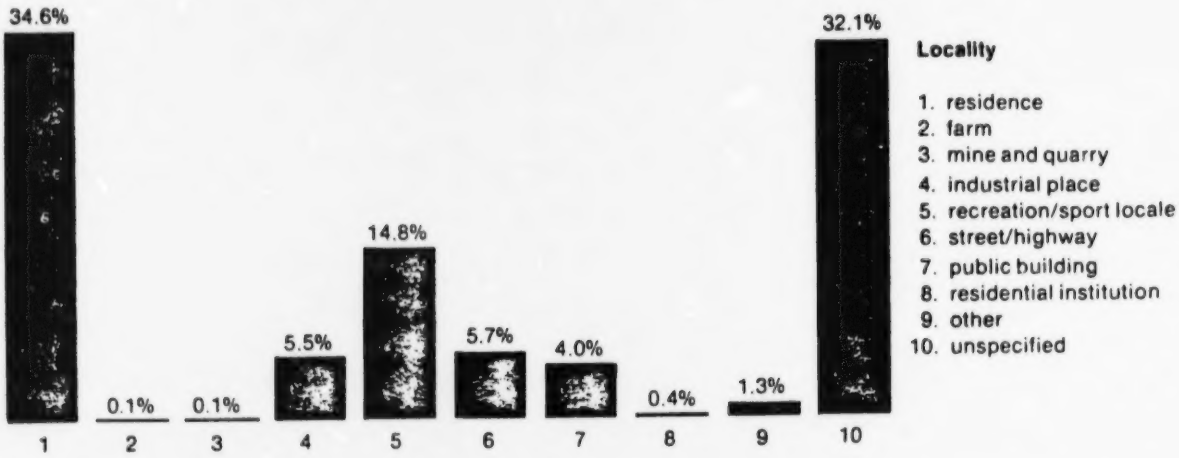
- Because two out of the five hospitals reporting accidents specialize in the treatment of children, there is a greater representation of younger age-groups involved in accidents *(64 per cent)* than is true for the population as a whole.
- Bicycles are associated with over 11 per cent of accidents in the under-15 age groups but only three per cent of accidents to adults. The majority of injuries were head wounds.
- Stairs and steps are associated with a consistently high number of accidents. For the under-five-years goup they are the highest classification by a considerable margin; this is also true for the over-65-years group, although the sample size is much smaller. In the latter age group, stairs and steps are associated with one-sixth of all reported accidents.
- Accidents associated with home and car repair and maintenance are also prominent. The combined total of accidents associated with motor vehicles and parts; metal parts and pieces; lumber, boards and panel pieces; and nails, screws and carpet tacks represent approximately 15 per cent of all accidents to adults. The number of accidents associated with ladders is approximately one per cent of the adult total.
- Playground apparatus including swings and slides are associated with six per cent of the accidents to the under-15-years group. The injuries requiring in-patient treatment included 13 fractured skulls.
- Household furniture such as beds, chairs and doors were associated with 6.5 per cent of accidents to the under-15-years group. Again, head injuries were the most frequent type of injury.
- Baseball *(including similar sports such as softball and fastball)* is the most dangerous summer sport, being associated with 5.5 per cent of accidents to adults, and 3.5 per cent of those to children. Football, soccer and ice hockey are also included among the activities most frequently associated with accidents.

**Figure 1**
**Number of Accidents by Age Category**
**April - September 1982**




Total number of accidents = 18,036

## Figure 2
## Place of Occurrence
## Top 20 Products or Activities Involved in Accidents
## April - September 1982




## TABLE 2
## Top 20 Products or Activities Involved in Accidents
## April - September 1982

| Product/Activity | Frequency | % |
|---|---|---|
| Bicycles or Accessories | 1,528 | 8.5 |
| Stairs or steps | 1,043 | 5.8 |
| Baseball | 764 | 4.3 |
| Glass Parts or Pieces | 530 | 3.0 |
| Motor Vehicles or Parts | 432 | 2.4 |
| Football | 394 | 2.2 |
| Knives | 390 | 2.2 |
| Doors | 375 | 2.1 |
| Nails, Screws, Carpet Tacks | 367 | 2.1 |
| Metal Parts or Pieces | 345 | 2.0 |
| Lumber, Boards, Panel Pieces | 308 | 1.7 |
| Beds | 299 | 1.7 |
| Swings or Swing Sets | 299 | 1.7 |
| Soccer | 291 | 1.7 |
| Hockey | 238 | 1.4 |
| Chairs | 235 | 1.2 |
| Roller Skating | 216 | 1.2 |
| Monkey Bars, Playground Apparatus | 207 | 1.2 |
| Foods | 196 | 1.1 |
| Slides | 193 | 1.1 |
| **TOTAL** | 8,650 | 48.0% |

Total number of accidents = 18,036

Note: Due to rounding, the total of the percentage column does not equal the sum of the components.

## TABLE 1
## Top 20 Products or Activities Involved in Accidents by Age Category April - September 1982

| Product/Activity | Age Categories | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | OVERALL | | 0 - 4 | | 5 - 14 | | 15 - 24 | | 25 - 64 | | 65 + | |
| | | % | | % | | % | | % | | % | | % |
| Bicycles or Accessories | 1,528 | 100 | 190 | 12.5 | 1,129 | 73.9 | 145 | 9.5 | 61 | 4.0 | 3 | 0.2 |
| Stairs or Steps | 1,043 | 100 | 545 | 52.3 | 255 | 21.6 | 108 | 10.4 | 129 | 12.4 | 36 | 3.5 |
| Baseball | 764 | 100 | 25 | 3.3 | 376 | 49.3 | 185 | 24.3 | 178 | 23.3 | — | — |
| Glass Parts or Pieces | 530 | 100 | 65 | 12.3 | 200 | 37.8 | 140 | 26.5 | 121 | 22.9 | 4 | 0.8 |
| Motor Vehicles or Parts | 432 | 100 | 67 | 15.5 | 96 | 22.3 | 127 | 29.4 | 129 | 29.9 | 13 | 3.0 |
| Football | 394 | 100 | — | — | 147 | 37.3 | 189 | 48.0 | 57 | 14.5 | 1 | 0.3 |
| Knives | 390 | 100 | 16 | 4.1 | 69 | 17.7 | 136 | 34.9 | 159 | 40.8 | 10 | 2.6 |
| Doors | 375 | 100 | 150 | 40.0 | 134 | 35.8 | 50 | 13.4 | 36 | 9.6 | 5 | 1.4 |
| Nails, Screws, Carpet Tacks | 367 | 100 | 48 | 13.1 | 149 | 40.6 | 73 | 19.9 | 94 | 25.7 | 3 | 0.9 |
| Metal Parts or Pieces | 345 | 100 | 20 | 5.8 | 34 | 9.9 | 94 | 27.3 | 194 | 56.3 | 3 | 0.9 |
| Lumber, Boards, Panel Pieces | 308 | 100 | 23 | 7.5 | 62 | 20.2 | 81 | 26.3 | 135 | 43.9 | 7 | 2.3 |
| Beds | 299 | 100 | 224 | 75.2 | 48 | 16.1 | 6 | 2.1 | 12 | 4.1 | 9 | 3.1 |
| Swings or Swing Sets | 299 | 100 | 125 | 41.8 | 168 | 56.2 | 3 | 1.0 | 2 | 0.7 | 1 | 0.4 |
| Soccer | 291 | 100 | 2 | 0.7 | 180 | 61.9 | 87 | 29.9 | 22 | 7.6 | — | — |
| Hockey | 238 | 100 | 3 | 1.3 | 119 | 50.0 | 84 | 35.3 | 32 | 13.5 | — | — |
| Chairs | 235 | 100 | 151 | 64.3 | 43 | 18.3 | 13 | 5.6 | 23 | 9.8 | 5 | 2.2 |
| Roller Skating | 216 | 100 | 2 | 1.0 | 165 | 76.4 | 39 | 18.1 | 10 | 4.7 | — | — |
| Monkey Bars, Playground Apparatus | 207 | 100 | 56 | 27.1 | 149 | 72.0 | 1 | 0.5 | — | — | 1 | 0.5 |
| Foods | 196 | 100 | 83 | 42.4 | 33 | 16.9 | 35 | 17.9 | 42 | 21.5 | 3 | 1.6 |
| Slides | 193 | 100 | 104 | 53.9 | 84 | 43.6 | 2 | 1.1 | 2 | 1.1 | 1 | 0.6 |
| **TOTAL** | 8,650 | 100 | 1,899 | 22.0 | 3,610 | 41.8 | 1,598 | 18.5 | 1,438 | 16.7 | 105 | 1.3 |
| Relative percentage, by age category as compared to the total number of Accidents N= 18,036 *(See Figure 1)*. | | | | | | | | | | | | |
| | 8,650 | 48.0 | 1,899 | 10.6 | 3,610 | 20.1 | 1,598 | 8.9 | 1,438 | 8.0 | 105 | 0.6 |

APPENDIX "D"

# National Electronic Injury Surveillance System

## Product Summary Report

## 1981

Consumer Product Services Commission

Washington, D.C.

Product Summary Report and NEISS Estimates of National Injury Incidents.

The Product Summary Report is a compilation of information derived from injuries treated in Hospital Emergency rooms participating in the National Electronic Injury Surveillance System (NEISS). The NEISS estimates are calculated from a sample of hospitals which are statistically representative of institutions with emergency treatment departments located within the United States and its Territories.

1. The data are specific to product codes and are presented in percentage by age group and disposition of the treated case.

2. The column titled sample count is the actual number of injury cases reported for the specific product code. The National estimate is a projection to the total U.S. population based upon the number in the sample count.

3. Certain variation within the National estimates should be expected due to deficiencies in human judgement and also in the sampling process.

## Explanation of Variation Associated with Estimates

There are two types of variation possible in an estimate based on a sample survey--sampling and non-sampling.

Sampling errors occur because observations are made only on a sample, not on the entire population. An estimate is subject to sampling variability (or has a standard or sampling error associated with it) because it is based on one of a large number of all possible samples of the same size that could have been selected using the same sample design. Estimates derived from the different samples would differ from each other. The difference between a sample estimate and the average of all possible samples is called the sampling deviation. The standard or sampling error of a survey estimate is a measure of the variation among the estimates from all possible samples and, thus, is a measure of the precision with which an estimate from a particular sample approximates the average result of all possible samples. The relative standard error is defined as the standard error of the estimate divided by the value being estimated.

The "accuracy" of a survey result is determined by the joint effects of sampling and non-sampling errors. The table below presents the approximated relative standard (or sampling) error associated with a given estimate. The chances are that 68 out of 100 times an estimate from a sample of a given size would differ from the average result of all possible samples of the same size by less than the standard error.

| Size of Estimate | Standard Error | Relative Standard Error or Coefficient of Variation (CV) |
|---|---|---|
| 250* | 176 | .70 |
| 500* | 253 | .51 |
| 1,000 | 369 | .37 |
| 2,500 | 636 | .25 |
| 5,000 | 1,012 | .20 |
| 10,000 | 1,703 | .17 |
| 25,000 | 3,694 | .15 |
| 50,000 | 6,972 | .14 |
| 75,000 | 10,242 | .14 |
| 100,000 | 13,509 | .14 |
| 200,000 | 26,573 | .13 |
| 300,000 | 39,634 | .13 |
| 400,000 | 52,694 | .13 |
| 500,000 | 65,755 | .13 |
| 1,000,000 | 131,055 | .13 |
| 1,500,000 | 196,354 | .13 |
| 2,000,000 | 261,654 | .13 |
| 2,500,000 | 326,953 | .13 |

Example of use of table: An aggregate estimate of 1,000 injuries has a relative standard error of 37 percent, or a standard error of $\pm$ 369 injuries (37 percent of 1,000). The range (1,000 - 369, 1,000 +369) represents a 68 percent confidence interval. However, it is more customary to use a 95 percent confidence interval, in which case the standard error should be multiplied by 1.96 producing a standard error of 723.

*These estimates are based on a very small number of cases. The standard errors for such estimates are therefore subject to a high degree of variability.

Non-sampling errors can be attributed to many sources, e.g., inability to obtain information about all cases in the sample, definitional difficulties, mistakes in recording or coding the data obtained and other errors of collection, response, processing, coverage, and estimation of missing data.

Recently, measures designed to protect the integrity of the raw data have been strengthened in an attempt to reduce to a minimum variation from human error in all product codes.

In consequence, the data and estimates appearing on succeeding pages are believed to be entirely suitable for all applications and uses for which such information is commonly employed.

S T A T I S T I C A L  A N A L Y S I S  S Y S T E M

PRODUCT SUMMARY REPORT  SOURCE: NATIONAL ELECTRONIC INJURY SURVEILLANCE SYSTEM
U. S. CONSUMER PRODUCT SAFETY COMMISSION/HAZARD IDENTIFICATION AND ANALYSIS
NATIONAL INJURY INFORMATION CLEARINGHOUSE

ALL PRODUCTS - CY 1981

06/03/82

| CODE | PRODUCT DESCRIPTION | NATIONAL ESTIMATE | SAMPLE COUNT | AGE PERCENTS 0-4 | 5-14 | 15-24 | 25-64 | 65-UP | DISP PERCENTS T&R | HOSP | DOA | UNK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0101 | WASHING MACHINES WITHOUT WRINGERS OR OTH | 145 | 2 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0102 | WRINGER WASHING MACHINES | 7194 | 135 | 36.0 | 19.7 | 10.8 | 19.9 | 13.6 | 80.3 | 19.7 | 0.0 | 0.0 |
| 0103 | WASHING MACHINES WITH UNHEATED SPIN DRYE | 162 | 2 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0106 | ELECTRIC CLOTHES DRYERS WITHOUT WASHERS | 412 | 4 | 0.0 | 45.1 | 0.0 | 54.9 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0107 | GAS CLOTHES DRYERS WITHOUT WASHERS | 47 | 2 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0108 | MANGLE IRONS | 178 | 3 | 16.8 | 0.0 | 0.0 | 83.2 | 0.0 | 33.5 | 66.5 | 0.0 | 0.0 |
| 0110 | ELECTRIC HEATING PADS | 610 | 8 | 11.2 | 0.0 | 0.0 | 54.1 | 34.7 | 82.3 | 17.7 | 0.0 | 0.0 |
| 0111 | PORTABLE ELECTRIC FANS | 3699 | 57 | 9.9 | 21.7 | 19.7 | 33.9 | 14.9 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0112 | SEWING MACHINES OR ACCESSORIES | 6608 | 106 | 12.9 | 16.3 | 23.9 | 42.6 | 4.2 | 99.7 | 0.3 | 0.0 | 0.0 |
| 0113 | FLOOR BUFFERS OR WAXERS | 436 | 6 | 0.0 | 0.0 | 35.8 | 64.2 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0114 | RUG SHAMPOOERS | 271 | 5 | 0.0 | 0.0 | 29.9 | 70.1 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0115 | VACUUM CLEANERS | 8971 | 153 | 12.7 | 14.5 | 11.8 | 49.3 | 11.7 | 98.3 | 1.7 | 0.0 | 0.0 |
| 0116 | ELECTRIC BROOMS | 691 | 12 | 9.1 | 0.0 | 19.9 | 52.2 | 18.9 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0118 | GAS WATER HEATERS | 1747 | 25 | 0.0 | 10.3 | 14.4 | 70.7 | 4.6 | 88.6 | 11.4 | 0.0 | 0.0 |
| 0125 | WATER SOFTENERS OR CONDITIONERS (APPLIAN | 507 | 5 | 16.0 | 0.0 | 0.0 | 84.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0126 | WASHING MACHINES, NOT SPECIFIED | 7103 | 149 | 12.5 | 9.2 | 24.7 | 46.6 | 7.0 | 99.0 | 1.0 | 0.0 | 0.0 |
| 0127 | CLOTHES DRYERS, NOT SPECIFIED | 3137 | 49 | 7.0 | 13.3 | 26.9 | 52.8 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0131 | PROPANE, LP, OR BUTANE GAS TANKS OR FITT | 1579 | 24 | 3.4 | 13.0 | 0.0 | 75.9 | 7.7 | 93.4 | 6.6 | 0.0 | 0.0 |
| 0132 | ELECTRIC BLANKETS OR SHEETS | 320 | 4 | 0.0 | 0.0 | 0.0 | 64.3 | 35.7 | 78.6 | 21.4 | 0.0 | 0.0 |
| 0133 | OTHER WATER HEATERS | 113 | 2 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0134 | WATER HEATERS, NOT SPECIFIED | 4945 | 79 | 21.7 | 6.2 | 12.4 | 55.0 | 4.7 | 88.1 | 11.9 | 0.0 | 0.0 |
| 0136 | DRINKING FOUNTAINS | 1305 | 28 | 36.5 | 34.1 | 13.2 | 14.4 | 0.0 | 98.3 | 1.7 | 0.0 | 0.0 |
| 0137 | AUTOMATIC DOORS OR DOOR OPENERS | 1849 | 38 | 53.0 | 8.6 | 9.3 | 26.5 | 2.5 | 97.4 | 2.6 | 0.0 | 0.0 |
| 0138 | AUTOMATIC GARAGE DOORS OR DOOR OPENERS | 917 | 14 | 20.3 | 14.3 | 3.2 | 54.7 | 7.5 | 90.1 | 9.9 | 0.0 | 0.0 |
| 0139 | INCINERATORS | 541 | 8 | 0.0 | 64.0 | 4.2 | 31.8 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0202 | ELECTRIC COUNTER-MOUNTED COOKING SURFACE | 451 | 6 | 28.3 | 43.5 | 23.3 | 5.0 | 0.0 | 95.0 | 5.0 | 0.0 | 0.0 |
| 0204 | GAS COUNTER-MOUNTED COOKING SURFACES | 253 | 3 | 45.2 | 45.2 | 0.0 | 9.6 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0208 | ELECTRIC REFRIGERATORS OR REFRIGERATOR/F | 2024 | 35 | 16.8 | 4.1 | 28.2 | 42.1 | 8.7 | 97.7 | 2.3 | 0.0 | 0.0 |
| 0212 | ELECTRIC CORN POPPERS | 485 | 7 | 9.7 | 63.4 | 22.2 | 4.7 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0213 | ELECTRIC CAN OPENERS | 493 | 7 | 21.3 | 37.8 | 6.0 | 18.5 | 16.4 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0214 | DISHWASHERS | 4307 | 73 | 14.5 | 19.2 | 12.2 | 45.9 | 8.1 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0215 | ELECTRIC BLENDERS | 1993 | 35 | 3.4 | 13.7 | 28.7 | 34.1 | 20.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0216 | ELECTRIC COUNTER-TOP OVENS, BROILERS, OR | 388 | 6 | 26.7 | 0.0 | 0.0 | 73.3 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0217 | ELECTRIC COFFEE MAKERS OR TEAPOTS | 492 | 7 | 46.6 | 5.0 | 6.1 | 37.8 | 4.6 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0218 | ELECTRIC OR BATTERY-POWERED KNIVES | 2540 | 30 | 6.8 | 4.1 | 33.0 | 50.7 | 5.3 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0219 | ELECTRIC DEEP FRYERS | 240 | 6 | 20.3 | 25.4 | 54.3 | 0.0 | 0.0 | 89.9 | 10.1 | 0.0 | 0.0 |
| 0221 | FOOD WARMERS | 360 | 8 | 6.8 | 8.3 | 21.8 | 63.2 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0222 | ELECTRIC FRYING PANS AND SKILLETS | 1797 | 22 | 12.4 | 11.6 | 33.6 | 36.3 | 6.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0223 | ELECTRIC GRIDDLES | 135 | 2 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0224 | HOT PLATES | 879 | 14 | 18.5 | 15.3 | 2.8 | 54.4 | 8.9 | 96.9 | 3.1 | 0.0 | 0.0 |
| 0227 | ICE MAKERS (SEPARATE FROM REFRIGERATORS) | 30 | 1 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0231 | ELECTRIC MIXERS | 2014 | 31 | 11.6 | 6.6 | 32.2 | 34.7 | 14.9 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0232 | ELECTRIC SCISSORS | 174 | 3 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0233 | ELECTRIC SLICERS OR CHOPPERS | 1428 | 22 | 6.4 | 8.9 | 54.1 | 30.6 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0234 | TOASTERS | 784 | 20 | 48.7 | 3.1 | 3.1 | 28.2 | 13.7 | 86.3 | 13.7 | 0.0 | 0.0 |
| 0235 | ELECTRIC WAFFLE IRONS | 304 | 5 | 8.0 | 0.0 | 35.4 | 30.0 | 26.6 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0236 | FAUCET WATER HEATERS | 49 | 2 | 45.8 | 54.2 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0237 | GARBAGE DISPOSERS | 773 | 14 | 2.9 | 34.5 | 3.1 | 45.6 | 13.9 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0238 | DRY HEAT IRONS | 167 | 7 | 56.3 | 29.2 | 0.0 | 14.6 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |

STATISTICAL ANALYSIS SYSTEM
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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0239 | STEAM IRONS | 575 | 19 | 49.8 | 22.7 | 18.0 | 9.4 | 0.0 | 90.9 | 9.1 | 0.0 | 0.0 |
| 0240 | ELECTRIC KNIFE SHARPENERS | 81 | 1 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0241 | ROTISSERIES | 47 | 2 | 51.9 | 0.0 | 0.0 | 48.1 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0245 | REFRIGERATORS OR REFRIGERATOR/FREEZERS, | 17773 | 360 | 11.3 | 9.2 | 21.8 | 54.8 | 2.9 | 97.8 | 2.2 | 0.0 | 0.0 |
| 0247 | IRONS, NOT SPECIFIED | 13416 | 359 | 57.7 | 9.9 | 12.5 | 19.6 | 0.4 | 97.6 | 2.4 | 0.0 | 0.0 |
| 0250 | RANGE OR OVEN ACCESSORIES | 4995 | 81 | 21.9 | 12.2 | 22.3 | 28.7 | 14.9 | 92.2 | 7.8 | 0.0 | 0.0 |
| 0252 | TRASH COMPACTORS | 794 | 11 | 0.0 | 16.6 | 37.2 | 46.1 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0255 | CLOTHES STEAMERS | 30 | 1 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0257 | COUNTER-MOUNTED COOKING SURFACES, NOT SP | 673 | 10 | 9.1 | 36.2 | 27.3 | 27.4 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0259 | ELECTRIC RANGES (WITH OVENS) | 2313 | 34 | 29.1 | 6.9 | 22.9 | 35.2 | 6.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0260 | GAS RANGES (WITH OVENS) | 4114 | 78 | 6.5 | 11.8 | 31.5 | 42.7 | 7.5 | 90.5 | 9.5 | 0.0 | 0.0 |
| 0261 | ELECTRIC OVENS | 545 | 7 | 19.3 | 4.2 | 54.9 | 21.7 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0262 | GAS OVENS | 3520 | 58 | 6.7 | 6.8 | 36.1 | 43.1 | 7.3 | 93.4 | 6.6 | 0.0 | 0.0 |
| 0263 | FREEZERS (SEPARATE FROM REFRIGERATORS) | 5150 | 87 | 10.4 | 11.9 | 18.1 | 56.1 | 3.6 | 95.4 | 4.6 | 0.0 | 0.0 |
| 0264 | MICROWAVE OVENS | 2059 | 31 | 21.6 | 9.7 | 26.2 | 31.3 | 11.3 | 95.6 | 4.4 | 0.0 | 0.0 |
| 0265 | OTHER OVENS | 104 | 2 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0266 | OVENS, NOT SPECIFIED | 12405 | 279 | 34.1 | 8.9 | 14.4 | 37.4 | 5.1 | 94.3 | 5.7 | 0.0 | 0.0 |
| 0267 | OTHER RANGES (WITH OVENS) | 138 | 5 | 78.4 | 0.0 | 0.0 | 21.6 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0268 | SLOW COOKERS | 779 | 14 | 31.0 | 3.1 | 13.5 | 52.4 | 0.0 | 94.2 | 5.8 | 0.0 | 0.0 |
| 0269 | ELECTRIC KETTLES OR HOT POTS | 285 | 5 | 18.4 | 0.0 | 28.4 | 0.0 | 53.2 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0270 | ICE CRUSHERS | 503 | 11 | 4.5 | 41.5 | 19.4 | 34.6 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0271 | JUICERS | 172 | 2 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0272 | ELECTRIC FOOD GRINDERS | 251 | 4 | 9.0 | 0.0 | 0.0 | 54.7 | 36.3 | 63.6 | 36.4 | 0.0 | 0.0 |
| 0273 | RANGES, NOT SPECIFIED | 12756 | 251 | 24.7 | 16.0 | 18.0 | 34.0 | 7.4 | 94.6 | 5.4 | 0.0 | 0.0 |
| 0274 | ICE CREAM MAKERS | 247 | 3 | 45.0 | 0.0 | 18.1 | 36.9 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0275 | FOOD PROCESSORS | 2108 | 36 | 8.1 | 7.0 | 7.6 | 70.8 | 6.5 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0301 | ELECTRIC AIR CONDITIONERS | 632 | 12 | 7.4 | 3.6 | 24.7 | 64.3 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0302 | GAS AIR CONDITIONERS | 47 | 2 | 48.1 | 0.0 | 0.0 | 0.0 | 51.9 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0304 | HUMIDIFIERS | 303 | 7 | 16.3 | 61.3 | 0.0 | 14.9 | 7.5 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0305 | VAPORIZERS | 744 | 16 | 91.8 | 0.0 | 0.0 | 3.0 | 5.1 | 77.7 | 22.3 | 0.0 | 0.0 |
| 0306 | DEHUMIDIFIERS | 307 | 3 | 38.5 | 0.0 | 0.0 | 35.2 | 26.4 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0308 | BOILERS | 574 | 14 | 3.9 | 6.7 | 22.2 | 67.2 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0309 | COAL FURNACES | 122 | 1 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0310 | GAS FURNACES | 2566 | 42 | 11.1 | 13.9 | 25.4 | 42.9 | 6.6 | 68.1 | 27.3 | 4.6 | 0.0 |
| 0311 | OIL FURNACES | 545 | 6 | 0.0 | 0.0 | 14.9 | 85.1 | 0.0 | 85.1 | 14.9 | 0.0 | 0.0 |
| 0312 | ELECTRIC BASEBOARD HEATERS | 843 | 10 | 68.8 | 9.6 | 0.0 | 21.6 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0316 | WOOD BURNING FIREPLACES, FACTORY BUILT | 91 | 2 | 24.8 | 0.0 | 0.0 | 75.2 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0318 | ELECTRIC FURNACES | 108 | 1 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0320 | HOME RADIATORS | 13905 | 295 | 38.4 | 21.4 | 10.4 | 23.9 | 6.0 | 98.3 | 1.7 | 0.0 | 0.0 |
| 0322 | FURNACES, NOT SPECIFIED | 3154 | 59 | 7.7 | 12.1 | 18.3 | 52.1 | 9.8 | 93.5 | 6.5 | 0.0 | 0.0 |
| 0334 | GAS-BURNING FIREPLACES, FACTORY BUILT | 23 | 1 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0336 | BUILT-IN FIREPLACES | 2130 | 41 | 70.8 | 11.5 | 1.1 | 16.6 | 0.0 | 98.9 | 1.1 | 0.0 | 0.0 |
| 0337 | HOT WATER PIPES | 2064 | 26 | 2.5 | 30.8 | 23.4 | 43.2 | 0.0 | 94.6 | 5.4 | 0.0 | 0.0 |
| 0338 | STEAM PIPES | 761 | 15 | 6.4 | 3.2 | 37.1 | 53.3 | 0.0 | 97.0 | 3.0 | 0.0 | 0.0 |
| 0340 | THERMOSTATS (FOR HEATING OR COOLING SYST | 179 | 3 | 0.0 | 0.0 | 45.1 | 54.9 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0342 | FIREPLACES, NOT SPECIFIED | 11351 | 179 | 54.6 | 16.5 | 9.2 | 17.8 | 1.9 | 95.3 | 4.7 | 0.0 | 0.0 |
| 0344 | FANS, NOT SPECIFIED | 8729 | 169 | 16.8 | 16.1 | 15.1 | 44.9 | 6.8 | 96.3 | 3.7 | 0.0 | 0.0 |
| 0348 | PORTABLE ELECTRIC HEATERS | 341 | 6 | 13.3 | 0.0 | 28.0 | 35.7 | 23.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0350 | GAS OR LP FLOOR HEATERS (RESTING ON FLOO | 297 | 5 | 10.0 | 30.6 | 0.0 | 59.5 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0356 | SEWAGE PIPES OR COVERS | 1704 | 29 | 11.8 | 45.9 | 11.5 | 24.4 | 6.5 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0357 | OTHER AIR CONDITIONERS | 680 | 16 | 13.3 | 15.9 | 28.9 | 38.6 | 3.3 | 96.7 | 3.3 | 0.0 | 0.0 |
| 0358 | AIR CONDITIONERS, NOT SPECIFIED | 6713 | 112 | 12.8 | 15.6 | 21.9 | 48.6 | 1.2 | 96.5 | 3.5 | 0.0 | 0.0 |
| 0359 | INSTALLED ELECTRIC FANS | 2343 | 32 | 12.3 | 8.1 | 17.0 | 55.0 | 7.5 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0360 | ELECTRIC WALL HEATERS | 91 | 1 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0361 | OTHER ELECTRIC HEATERS | 61 | 2 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0362 | PORTABLE GAS OR LP HEATERS (NONCATALYTIC | 49 | 2 | 54.2 | 0.0 | 0.0 | 45.8 | 0.0 | 54.2 | 45.8 | 0.0 | 0.0 |
| 0364 | OTHER GAS OR LP HEATERS | 209 | 2 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0366 | CATALYTIC HEATERS | 122 | 1 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0367 | COAL OR WOOD-BURNING STOVES | 8830 | 112 | 32.0 | 9.1 | 14.0 | 42.7 | 2.3 | 97.9 | 2.1 | 0.0 | 0.0 |
| 0368 | GASOLINE HEATERS (NONCATALYTIC) | 516 | 8 | 41.9 | 15.7 | 27.2 | 15.2 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0369 | OTHER HEATERS OR HEATING SYSTEMS | 1403 | 21 | 32.3 | 14.1 | 29.8 | 20.5 | 3.2 | 94.2 | 0.0 | 0.0 | 5.8 |
| 0370 | HEATERS OR HEATING SYSTEMS, NOT SPECIFIE | 8644 | 150 | 42.2 | 11.5 | 15.6 | 25.5 | 5.2 | 95.6 | 3.4 | 0.0 | 0.9 |
| 0371 | DUCTWORK FOR HEATING OR COOLING SYSTEMS | 5122 | 73 | 45.5 | 14.1 | 12.4 | 26.2 | 1.8 | 96.6 | 1.8 | 0.0 | 1.6 |
| 0372 | BRICK, STONE OR MASONRY CHIMNEYS | 349 | 4 | 0.0 | 50.6 | 23.2 | 26.1 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0373 | METAL CHIMNEYS, STOVEPIPES, OR FLUES | 419 | 5 | 18.7 | 25.1 | 5.4 | 50.8 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0375 | ELECTRIC HEATERS, NOT SPECIFIED | 596 | 8 | 48.5 | 19.8 | 0.0 | 18.1 | 13.6 | 84.7 | 15.3 | 0.0 | 0.0 |
| 0376 | GAS OR LP HEATERS, NOT SPECIFIED | 1126 | 13 | 17.7 | 8.1 | 33.2 | 30.2 | 10.8 | 88.4 | 11.6 | 0.0 | 0.0 |
| 0377 | PIPES, NOT SPECIFIED | 32306 | 708 | 5.8 | 26.1 | 24.7 | 38.9 | 4.4 | 98.8 | 1.2 | 0.0 | 0.0 |
| 0378 | CHIMNEYS, NOT SPECIFIED | 1076 | 18 | 0.0 | 2.1 | 11.0 | 86.9 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0382 | OTHER RADIATORS (NONVEHICULAR) | 298 | 6 | 44.4 | 38.0 | 7.6 | 10.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0383 | OTHER PIPES | 3480 | 50 | 4.6 | 15.6 | 20.6 | 54.6 | 1.4 | 92.7 | 7.3 | 0.0 | 0.0 |
| 0384 | FLOOR FURNACES (BUILT INTO FLOOR) | 762 | 16 | 97.0 | 3.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0387 | RADIATORS, NOT SPECIFIED | 9292 | 253 | 25.3 | 18.1 | 24.5 | 30.3 | 1.9 | 98.5 | 1.5 | 0.0 | 0.0 |
| 0399 | KEROSENE OR OIL HEATERS | 3070 | 37 | 48.1 | 28.6 | 12.1 | 11.2 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0401 | NONELECTRIC CAN OPENERS | 894 | 14 | 3.3 | 15.7 | 23.5 | 45.7 | 11.7 | 96.7 | 3.3 | 0.0 | 0.0 |
| 0405 | UNPOWERED COFFEE MAKERS OR TEAPOTS | 696 | 11 | 20.2 | 7.5 | 34.2 | 26.4 | 11.6 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0407 | UNPOWERED CUTLERY OR KITCHEN KNIVES | 87769 | 1341 | 3.9 | 12.1 | 27.8 | 52.2 | 3.9 | 98.8 | 1.1 | 0.0 | 0.0 |
| 0408 | IRONING BOARDS OR COVERS | 2274 | 59 | 38.3 | 5.5 | 12.7 | 35.0 | 8.5 | 98.9 | 1.1 | 0.0 | 0.0 |
| 0412 | PRESSURE COOKERS OR CANNERS | 2665 | 44 | 5.6 | 6.3 | 20.1 | 61.4 | 6.5 | 87.2 | 12.8 | 0.0 | 0.0 |
| 0413 | WASTE CONTAINERS, TRASH BASKETS, OR REFU | 23885 | 458 | 7.9 | 29.2 | 20.3 | 33.8 | 8.3 | 96.3 | 3.7 | 0.0 | 0.0 |
| 0414 | NONELECTRIC SLICERS OR CHOPPERS | 753 | 10 | 0.0 | 10.4 | 32.6 | 57.0 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0415 | WAX CANDLES OR PARAFFIN | 3179 | 69 | 10.1 | 20.2 | 20.7 | 44.2 | 4.8 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0416 | CORKSCREWS | 464 | 9 | 0.0 | 4.9 | 9.8 | 85.4 | 0.0 | 95.1 | 4.9 | 0.0 | 0.0 |
| 0417 | FLATWARE | 6567 | 140 | 31.3 | 21.5 | 12.9 | 31.5 | 2.7 | 97.5 | 2.5 | 0.0 | 0.0 |
| 0419 | TIE RACKS, BELT RACKS, OR OTHER CLOTHES | 7662 | 155 | 31.8 | 29.7 | 11.5 | 21.3 | 5.7 | 99.1 | 0.9 | 0.0 | 0.0 |
| 0420 | MANUAL SCISSORS | 5581 | 101 | 11.0 | 25.5 | 28.2 | 24.5 | 10.8 | 97.3 | 2.7 | 0.0 | 0.0 |
| 0421 | NONELECTRIC KNIFE SHARPENERS | 541 | 6 | 0.0 | 0.0 | 27.6 | 57.4 | 15.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0422 | BOTTLE OPENERS | 316 | 5 | 25.6 | 0.0 | 29.4 | 7.7 | 37.3 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0424 | GLASS DRINKING GLASSES | 80421 | 1246 | 5.0 | 8.7 | 37.2 | 47.1 | 2.1 | 99.5 | 0.5 | 0.0 | 0.0 |
| 0427 | ICE PICKS | 2661 | 61 | 1.8 | 10.1 | 26.2 | 54.8 | 7.1 | 95.1 | 4.9 | 0.0 | 0.0 |
| 0428 | KITCHEN GADGETS, NOT ELSEWHERE CLASSIFIE | 3775 | 71 | 26.9 | 12.2 | 18.6 | 42.3 | 0.0 | 96.3 | 3.7 | 0.0 | 0.0 |
| 0429 | FOOD SKEWERS | 505 | 10 | 0.0 | 4.5 | 22.1 | 73.4 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0431 | TOOTHPICKS OR HORS D'OEUVRES PICKS | 8083 | 156 | 8.6 | 29.7 | 19.2 | 40.0 | 2.5 | 98.7 | 1.3 | 0.0 | 0.0 |
| 0432 | TRAYS | 1639 | 36 | 12.1 | 1.4 | 8.4 | 66.1 | 11.9 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0433 | CANDLESTICKS OR HOLDERS | 700 | 11 | 28.8 | 19.1 | 15.4 | 36.8 | 0.0 | 100.0 | 0.0 | 0.0 | 0.0 |
| 0434 | DOORSTOPS | 1630 | 25 | 17.0 | 19.5 | 12.2 | 38.4 | 12.9 | 93.6 | 6.4 | 0.0 | 0.0 |
| 0435 | KITCHEN MIXING BOWLS, CANISTERS, OR SIMI | 3820 | 55 | 18.1 | 18.6 | 21.1 | 41.7 | 0.6 | 96.6 | 3.4 | 0.0 | 0.0 |
| 0436 | POTHOLDERS, OVEN MITTS, OR HOT PADS | 345 | 8 | 0.0 | 7.8 | 11.1 | 61.6 | 19.5 | 100.0 | 0.0 | 0.0 | 0.0 |

APPENDIX "E"

Consumer Product Hazard Index

(Sample)

Consumer Product Services Commission

Washington, D.C.

Consumer Product Hazard Index - 1975

## PRINCIPAL PRODUCT LIST

| Rank[1] | Product Number[2] | Product Description[3] | AFSI[4] |
|---|---|---|---|
| 1 | 1202 | Bicycles & Bicycle Equipment, Inc. Add-On Features (Baskets, Horns, Non-Standard Seats, Handlebars) | 30.584 |
| 2 | 1842 | Stairs (Incl. Folding Stairs) Steps, Ramps, and Landings | 21.023 |
| 3 | 1401 | Power Lawnmowers & Unspecified Lawnmowers | 11.977 |
| 4 | 1211 | Football, Activity, Related Equipment & Apparel | 11.719 |
| 5 | 1204 | Baseball, Activity, Related Equipment & Apparel | 11.052 |
| 6 | 1241 | Swings, Slides, Seesaws & Playground Equipment | 10.463 |
| 7 | 0645 | Tables, Non-Glass & Unspecified | 9.462 |
| 8 | 0601 | Beds, Including Springs & Frames | 7.206 |
| 9 | 1819 | Nails, Carpet Tacks & Screws, Thumbtacks | 7.147 |
| 10 | 0602 | Chairs, Sofas & Sofa Beds | 6.827 |
| 11 | 1231 | Swimming Pools & Related Equipment | 6.346 |
| 12 | 1205 | Basketball, Activity, Related Equipment & Apparel | 6.278 |
| 13 | 0910 | Liquid Fuels, Kindling, Illuminating (Incl. Gasoline, Kerosene, Lighter Fluid, Fuel for Chafing Dishes & Fondue Pots, Charcoal Starter, etc.) | 5.450 |
| 14 | 1807 | Floors & Flooring Materials | 5.421 |
| 15 | 0902 | Bleaches & Dyes, Cleaning Agents, Caustic Compounds | 5.383 |

Consumer Product Hazard Index - 1975 (cont'd)

PRINCIPAL PRODUCT LIST

| Rank[1] | Product Number[2] | Product Description[3] | AFSI[4] |
|---|---|---|---|
| 16 | 1815 | Architectural Glass, Incl. Glass Doors | 5.323 |
| 17 | 1216 | Snow Skiing & Related Equipment | 4.278 |
| 18 | 0604 | Desks, Storage Cabinets, Glass Shelves, Bookshelves & Magazine Racks | 4.140 |
| 19 | 0610 | Bathtubs, Non-Glass Shower Enclosures & Shower Stuctures Other Than Doors & Panels | 3.548 |
| 20 | 0921 | Household Chemical Products Other Than Bleaches & Dyes Cleaning Agents, Caustics, Paints, Waxes (e.g., Fumigants, Adhesives, Photographic Chemicals, Carbon Tetrachloride, Acid, Chemical Deodorizer) | 3.453 |
| 21 | 0202 | Cooking Ranges, Ovens & Related Equipment | 3.385 |
| 22 | 0618 | Ladders & Stools | 3.092 |
| 23 | 1614 | Clothing, Incl. Day & Night Wear | 2.977 |
| 24 | 0801 | Home Workshop Power Saws & Unspeicified Saws | 2.872 |
| 25 | 1308 | Skates, Scooters & Skateboards | 2.806 |

[1] Excluded from this Principal Product List are products either not under CPSA jurisdiction, questionably under CPSA jurisdiction, or products lacking in sufficient specificity.

[2] Except wher two or more NEISS products have been grouped, product numbers correspond to product codes as they appear in the NEISS Coding Manual. For grouped products, the product number is the NEISS product code for a typical product in the group. In the listings these grouped product number are starred (*).

[3] In some cases, the product descriptions include more than one NEISS product category.

[4] The Age Adjusted Frequency-Severity Index (AFSI) was derived by multiplying the estimate of the numbers of injuries treated in emergency rooms for a product category by the mean severity of these injuries, multiplying this by 2.5 for the injuries occurring to children (0 - 14 years) to bring the age 14 and younger population to par with the 15 and older population, then summing all such weighted injury severity values. This sum was then divided by 1 million and the last three digits of the resulting number were truncated to obtain the AFSI index number.